PRISME™ BIOTECH SOFTWARE

CHALLENGE: SCI-TECH GOALS

Developing a combined **AI/ML and hardware healthcare solution** requires balancing regulator needs, technical constraints and major PHI data handling.

The system needs to be built from Privacy by Design principles, integrate with laboratory processes, and **iterate existing processes** into a coherent, scalable, robust system for handling patient samples.

Prismea are experts at **commercialising research** into high growth businesses.

Can ● Sense

SYSTEM DESIGN

Identifying the core functionality was key, then **mapping the data flows** for the stakeholders, to enable a high-level system architecture to be defined.

A modular design, API driven interactions with **high business process automation** and constrained human interactions was produced for CanSense to iterate from.

> ❝ **[Prismea] provided a pragmatic, initial product architecture based on our current situation.**

CERYS JENKINS, PhD, CDS

Cerys co-founded CanSense in 2018 with a background in physics, chemistry and medical research. She developed the AI/ML methodologies behind the CanSense and leads the technical section of the business.

She won the Herald Scotland Global Game Changers Women in Innovation award.

PROCESS FOR CANSENSE

Prismea contextualised the regulatory and technology needs into an initial design through knowing the business and science:

- Understand the business needs
- Map the scientific processes
- Follow the data flow

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FULL QUOTE: CERYS

Mark and Andrew took onboard our technical, business and scientific requirements quickly - understanding the nuances and tensions between potentially conflicting needs. They systematically worked through our company from the business goals down to the AI techniques and code. They helped validate our technical decisions, place them all in context and provide alternatives to challenge our assumptions.

They provided a pragmatic, initial product architecture based on our current situation, with clear explanations of what the options are, why each choice will change over time and how to evolve our architecture. Their presentation of the architecture was insightful and really clarified the scope of our technical challenges, our hiring priorities and our cloud requirements as well as the benefits and risks of each option.

COMPANY: CANSENSE

CanSense are delivering a scalable, high-throughput laser spectroscopy with advanced data analytics platform for their cancer diagnostic solution.

TECHNICAL MAP

The requirements map for CanSense is very intricate. They need to meet business, academic, clinical trial, NHS and regulatory goals and interlinking constraints. The systems they design and build are going to be complex.

Through gaining an understanding of their situation and applying our knowledge gained from working in similar complex landscapes, Prismea were able to provide one solution that met their prioritised needs, was pragmatic to IT choices, and gave context to technical decisions moving forward.

TRULY MULTIDISCIPLINARY

Cerys is an expert across many disciplines: including imaging/spectroscopy, AI/ML, biochemistry, and software engineering.

PRIORITISED DEVELOPMENT

Having a technical goal, no matter how approximate, gives structure to team building and prioritised project goals.